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Foreign Documents Branch C I A Periodical Abstracts

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SCIENTIFIC

Number 47

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<u>Russian Periodicals</u>		
"Doklady Akademii Nauk SSSR, Novaya Seriya" (Reports of the Academy of Sciences of the USSR, New Series) Cards 7-12, 20, 46-48, 53-60, 99, 100, 102	Vol LIX No 7	1 Mar 1948
"Doklady Akademii Nauk SSSR, Novaya Seriya" (Reports of the Academy of Sciences of the USSR, New Series) Cards 13-19, 42-45, 49-52, 93-98, 101	Vol LIX No 8	Mar 1948
"Elektrichestvo" (Electricity) Cards 3-6, 21-34	No 3	Mar 1948
"Klinicheskaya Meditsina" (Clinical Medicine) Cards 61-73	Vol XXVI No 2	Feb 1948
"Nevropatologiya i Psikhatriya" (Neuropathology and Psychiatry) Cards 1, 2, 80-89	Vol XVII No 1	Jan/Feb 1948
"Vestnik Elektro-Promyshlennosti" (Herald of the Electrical Industry) Cards 39-41	No 1	Jan 1948
"Vestnik Elektro-Promyshlennosti" (Herald of the Electrical Industry) Cards 35-38	No 2	Feb 1948
"Vestnik Oftalmologii" (Herald of Ophthalmology) Cards 74-79	Vol XXVII No 1	Jan/Feb 1948
"Vestnik Oto-Rino-Laringologii" (Herald of Otorhinolaryngology) Cards 90-92	No 1	Jan/Feb 1948

NOTE

In indexing these abstracts the following guides are used: MEDICINE - "Quarterly Cumulative Index Medicus," American Medical Association; CHEMISTRY - "Chemical Abstracts Subject Index," American Chemical Society; GENERAL - "Subject Headings for Technical Libraries," US Department of Commerce, Office of Technical Services.

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<p>REDACTED</p> <p>FDB Periodical Abstracts Scientific No 47</p> <p>USSR/Academy of Sciences Medicine</p> <p>Jan 1948</p> <p>"In the Uzbekistan Society of Neuropathologists and Psychiatrists during 1946" 3 pp</p> <p>"Nevropat i Psiakhiat" Vol XVII, No 1</p> <p>Briefly outlines minutes of meetings of this society held during 1946. Various cases brought up before the sessions.</p>	<p>REDACTED</p> <p>USSR/Academy of Sciences Medicine</p> <p>Jan 1948</p> <p>"Report of Neurological Meetings of the Leningrad Society of Neuropathologists and Psychiatrists from May 1946 to May 1947" 2 pp</p> <p>"Nevropat i Psiakhiat" Vol XVII, No 1</p> <p>Very briefly outlines following sessions: 30 May, 19 Jun, 26 Sep, 17 Oct, and several sessions held in memory of the passing of scientists, in memory of Blumena, 28 Nov, and Venderovich, 17 Dec.</p>
<p>FDB 47T1</p> <p>USSR/Academy of Sciences Energetics</p> <p>Mar 1948</p> <p>"Dissertations at Moscow Energetics Institute imeni Molotov," Docent A. S. Sergeyev, Sci Secy, Sci Council MEI, 4½ pp</p> <p>"Elektrichestvo" No 3</p> <p>Lists titles and dates of submission of dissertations during period, Jan - Dec 1947.</p>	<p>FDB 47T2</p> <p>USSR/Academy of Sciences</p> <p>Mar 1948</p> <p>"Scientific Session of Kiev Polytechnical Institute," V. G. Kholmnskiy, K. V. Chertoryzhskiy, Candidates Tech Sci, ½ p</p> <p>"Elektrichestvo" No 3</p> <p>Briefly describes proceedings of Oct 1947 session of Kiev Polytechnical Institute. Gives roster of authors submitting articles. Briefly comments on articles.</p>
<p>FDB 47T3</p> <p>USSR/Academy of Sciences Energetics</p> <p>Mar 1948</p> <p>"All-Union Correspondence Energetics Institute," I. I. Petrov, Vice-director Sci and Educ Work of VZEI, ½ p</p> <p>"Elektrichestvo" No 3</p> <p>Briefly describes organization of Correspondence Energetics Institute, organized during latter part of 1947.</p>	<p>FDB 47T4</p> <p>USSR/Academy of Sciences Illumination</p> <p>Mar 1948</p> <p>"Commission for Illuminating Engineering under Department of Technical Sciences, Academy of Sciences, USSR," Prof M. V. Sokolov, Dr Tech Sci, Sci Sec of Commission, 1 p</p> <p>"Elektrichestvo" No 3</p> <p>Commission formed by Presidium of Academy of Sciences. Gives membership of Commission, and brief account of 25 Nov 1947 meeting. Also mentions several meetings during Dec 1947 when the Moscow and Leningrad Commissions held joint sessions.</p>
<p>FDB 47T5</p> <p>USSR/Chemistry - Synthesis, Diene Chemistry - Cyclic Compounds</p> <p>1 Mar 1948</p> <p>"Diene Synthesis of Cyclic Compounds by the Dialkylacetylides of Mercury," V. S. Abramov, L. A. Shapshinskaya, 2 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>As dienophyl, authors chose dialkylacetylenides of mercury: First, to test whether or not they react with dienes, and secondly, in case the reaction takes place, to synthesize polycyclical dimercurial organic compounds with their help, where the atoms of mercury stand in O-position and the synthesis is difficult by other methods. Report results briefly. Submitted by Academician A. Ye. Arbuzov, 23 Dec 1947.</p> <p>FDB 47T7</p>	<p>FDB 47T6</p> <p>USSR/Chemistry - Ketones Chemistry - Aluminosilicates, as Catalysts</p> <p>1 Mar 1948</p> <p>"Transformation of Ketones by Active Aluminosilicates," A. Ya. Larin, A. V. Frost, 3½ pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Mesityl oxide, methylethyl ketone, pinacolin, cyclohexanon, acetophenone, and benzophenone studied with active aluminosilicate as catalyzer. Experiments conducted in the vapor phase with multiple circulation of the ketone through the catalyzer. Gives results of catalytic transformation of ketones in detail.</p> <p>FDB 47T8</p>

FDB Periodical Abstracts Scientific No 47

~~RECORDED~~USSR/Chemistry - Silver
Chemistry - Oxidation

1 Mar 1948

"Kinetics of the Oxidation of Silver by Molecular Oxygen in Electrical Gaseous Discharge," V. V. Tyapkina, P. D. Dankov, Lab Structures of Surface Layers, Inst Phys Chem, Acad Sci USSR, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Authors' experiments show that in oxidation of layers of silver, previously condensed in volume in electrical gas discharge, film of cubic oxide of Ag_2O formed with cuprite-type lattice. Thus discovered that active particles arising in conditions of electrical discharge in oxygen capable of leading to thorough

FDB

47T9

USSR/Chemistry - Silver (Contd)

1 Mar 1948

oxidation of silver. To explain mechanism of phenomenon of formation of polymolecular layers of the oxide, authors studied dependence of the speed of oxidation of silver on the time of processing it in the electrical discharge. Submitted by Academician V. A. Kist'yakovskiy, 20 Dec 1947.

FDB

47T9

USSR/Chemistry - Aromatization
Chemistry - Catalysts, Chromium

1 Mar 1948

"Aromatization of Diallyl on Chromium Catalysts," A. F. Plate, M. I. Batuyev, Inst Org Chem, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Experiments made on the isomerization of diallyl into dipropenyl over catalyzer of Cr_2O_3/Al_2O_3 at 300 and 400°: Show that in these conditions benzene is formed, the content of which is 6% in catalyze obtained at 300° and 11% at 400°. Show that application of refractometric methods of analysis to determine the dipropenyl in catalyzates obtained in isomeriza-

FDB

47T11

USSR/Chemistry - Aromatization (Contd)

1 Mar 1948

tion of diallyl on oxide catalyzers that can cause aromatization may lead to errors as result of benzene content in the catalyzers. Submitted by Academician B. A. Kazanskiy, 6 Dec 1947.

FDB

47T11

USSR/Chemistry - Thiophenes, Phenyl
Chemistry - Synthesis

1 Mar 1948

"New Method of Synthesis of Phenylthiophenes and Their Homologs," A. S. Broun, M. G. Voronkov, Chem Faculty, Leningrad State U, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Authors showed in previous article that in heating alpha and beta-dimethylstyrol or alpha, beta, beta-trimethylstyrol with three equivalents of sulfur at 190-210° C until complete cessation of precipitation of hydrogen sulfides, smooth formation of beta-phenylthiophene and beta-phenyl-beta'-thiotolene results. Assuming that this reaction has general sig-

FDB

47T10

USSR/Chemistry - Thiophenes, Phenyl
(Contd)

1 Mar 1948

nificance, they tried to synthesize the remaining two theoretically possible beta-phenylthiotolenes. Consequently, in realization of the reaction of sulfur with alpha-methyl-beta-ethylstyrol and beta-methyl-alpha-ethylstyrol, obtained beta-phenyl-alpha-thiotolene and beta-phenyl-alpha thiolene heretofore unknown. Submitted by Academician A. N. Terenin, 5 Jan 1948.

FDB

47T10

USSR/Chemistry - Acids, Manufacture of
Organic
Chemistry - Synthesis

1 Mar 1948

"Synthesis of Substituted Benzylphosphine Acids and Their Esters," B. P. Iagovkin, B. A. Arbuzov, Corr Mem Acad Sci USSR, Sci Res Chem Inst imeni A. M. Butlerov, Kazan State U imeni V. I. Ul'yanov-Lenin, 32 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Since very diverse benzyl derivatives substituted in the benzene nucleus easily obtained by the reaction of chlorine methylation, possible with the reaction with full esters of phosphorous acid or dialkylphos-

FDB

47T12

USSR/Chemistry - Acids, Manufacture of
Organic (Contd)

1 Mar 1948

phorous sodium to synthesize esters of corresponding substituted benzylphosphine acids. Thus with the action of triethylphosphite on substituted derivatives of benzyl chloride, authors synthesized esters of benzylphosphine acid which contains alkyl groups, haloids, oxygen group, nitrogen group, and aldehyde group in the phenyl radical.

FDB

47T12

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED	
USSR/Chemistry - Heterocyclic Compounds Chemistry - Sulfur, Reaction	Mar 1948	USSR/Chemistry - Dioxane, Compounds of Chemistry - Polarity	Mar 1948
<p>"New Trend of Sulfur Reaction in Unsaturated Compounds, and New Heterocyclic Compounds: Phenyl-Substituted 1, 2-Dithiole-3-Thione," M. G. Voronkov, A. S. Braun (Deceased), Chem Faculty Leningrad State U, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes various reactions of sulfur phenylphenolins, and how substance with composition of $C_9H_6S_3$ obtained by heating 1-phenylpropene-1 at 190 - 220°C. Submitted by Academician A. N. Terenin, 22 Dec 1947.</p>		<p>"Polarity of Molecular Compounds of Dioxane and Pyridine," Ya. K. Syrkin, K. M. Anisimova, Inst Fine Chem Tech imeni M. V. Lomonosov, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes measurement of dipole moments of dioxane molecular compounds in dioxane solutions and tabulates results. Gives rate of polarization depending on concentration of the solution.</p>	
FDB	47T13	FDB	47T14
USSR/Chemistry - Corrosion, Iron Chemistry - Electrolytes	Mar 1948	USSR/Chemistry - Grignard Reaction Chemistry - Halides	Mar 1948
<p>"Research on Corrosion of Iron during Contact with Edges of Electrolyte Solution and with Organic Liquid," I. V. Krotov, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiments showing that when iron has contacted electrolyte solution or organic liquid for more than 24 hours, considerable increase in corrosion can be expected. Submitted by Academician V. A. Kist'yakovskiy, 2 Jan 1948.</p>		<p>"Grignard Reaction with Aliphatic and Alicyclic Tertiary Halides," A. F. Plate, P. I. Zabezhenskaya, Inst Org Chem, Acad Sci USSR, Moscow State U imeni M. V. Lomonosov, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>States that one of the methods used for obtaining hydrocarbons with quaternary atom of carbon is the reaction between tertiary alkyl magnesium halide and chlorine or bromine allyl, and describes use of this reaction for the synthesis of certain cyclopentane homologs. Submitted by Academician B. A. Kazanskiy, 26 Dec 1947.</p>	
FDB	47T15	FDB	47T16
USSR/Chemistry - Phosphorous Compounds, Organic Chemistry - Silicon	Mar 1948	USSR/Chemistry - Thermoelectricity Chemistry - Electrolytes	Mar 1948
<p>"Silicon Phosphororganic Derivatives," B. A. Arbuzov, A. N. Pudovik, Chem Inst, Kazan Branch, Acad Sci USSR, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiment designed to examine the reaction between triethylphosphite and haloid silicon phosphororganic derivatives: led to obtaining compounds with phosphorous-silicon connection.</p>		<p>"Thermal Electrical Fluctuations in an Electrolyte," E. Ya. Pumper, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 2 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiment providing measurement of thermal electrical fluctuations using electrolytic resistance in form of glass U-tube 4 mm in diameter, 12 cm long and 3 cm wide with platinum electrodes soldered at the ends. Submitted by Academician M. A. Leontovich, 13 Jan 1948.</p>	
FDB	47T17	FDB	47T18
USSR/Communications Systems, Electric	Mar 1948	USSR/Communications Telegraphy Mathematics, Applied	1 Mar 1948
<p>"Functional-Determining Dynamic Systems, and Invariant Measures in Them," D. Mil'man, Odessa Electrotech Communications Inst, 2 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Introduces new terminology including: Q, abstract combination of elements; E, linear combination of substantial and organic functions in Q consisting of function equal to exactly one unit; Q_0, half group with unit of well-defined reflections of Q.</p>		<p>"Integral Differential Telegraphic Equations," M. I. Rozovskiy, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Examines the process of transmission of energy along a long conductor in presence of magnetic and electrostatic fields. Submitted by Academician S. L. Sobolev, 6 Jan 1948.</p>	
FDB	47T19	FDB	47T20

RESTRICTED		FDB Periodical Abstracts Scientific No 47		RESTRICTED	
USSR/Communications Modulation, Distortion Mar 1948		USSR/Electricity Mar 1948		USSR/Electricity Mar 1948	
"Fourier Series Method of Analyzing Operating Characteristics," Docent S. V. Person, Candidate Tech Sci, Leningrad Inst Communications, 6 pp		"Young Electrical Engineer--A Journal for Young Electrical Engineers of Yugoslavia," P. I. Voyevodin, 1 p		"Elektrichestvo" No 3	
"Elektrichestvo" No 3		Briefly describes journal and objectives for its publication.			
Describes simple, general, and proved method, first applied by author in 1934, to determine minor distortions of modulation characteristics. Permits fairly exact determination of the amplitude of every harmonic. Explains method by practical examples.					
FDB	47T21	FDB	47T22		
USSR/Electricity Circuits, Equivalent Mar 1948		USSR/Electricity Drives, Electric Mar 1948			
"Reduction of Complex Circuits to Simplest Equivalent Systems," Prof A. A. Gorev, Dr Tech Sci; Docent M. V. Kostenko, Candidate Tech Sci, Leningrad Polytech Inst imeni Kalinin, 4 pp		"Scientific Engineering Session for Electrical Drives," Docent V. A. Rozenberg, Chm of Session; Yu. A. Sabinin, Candidate Tech Sci, Sci Secy of Session, 3 1/4 pp			
"Elektrichestvo" No 3		"Elektrichestvo" No 3			
Describes transformation of polygon systems into equivalent stars and obtaining of formulas for such transformations. Explains transformation of complete rectangular network with arbitrary conductance into four-element star, and develops formulas to calculate such systems. Describes transformation of other com-		Held in Leningrad, 8 - 13 Dec 1947. Main object: to place before electrical engineers the plans for first postwar Five-Year Plan. Lists the more important attending scientists and technicians. Briefly describes some of articles submitted for reading and judgment.			
FDB	47T23	FDB	47T24		
USSR/Electricity (Contd) Mar 1948		USSR/Electricity Power Plants, Electric Mar 1948			
plex polygon systems with arbitrary conductance into simple equivalent systems.		"New Rayon Electric Stations," F. L. Veytkov, Engr, 1/2 p			
		"Elektrichestvo" No 3			
		Offers brief notes on rayon power stations. States that DneprocGES imeni Lenin has third unit in operation. Briefly describes installation. Khramsk Hydroelectric Station, first power station in Gruzian SSR, went into operation, Dec 1947. Gives some performance data. Combined turbogenerator and boiler power station, first power station in Astrakhan, went into operation at end of 1947.			
FDB	47T23	FDB	47T25		
USSR/Electricity Lighting, Industrial Illumination Mar 1948		USSR/Electricity Thermoelectricity Training Mar 1948			
"New Specifications for Artificial Illumination in Industrial Installations," N. V. Kozlov, Engr, All-Union Committee for Standards, Council of Ministers USSR, 3 pp		"Scientific and Technical Problems of Industrial Electrothermics," G. A. Sisoyan, Dr Tech Sci, Gruzian Polytech Inst imeni Kirov, 5 pp			
"Elektrichestvo" No 3		"Elektrichestvo" No 3			
New standards became effective on specifications for artificial illumination of industrial installations 22 Jun 1947. Briefly describes some points of new specifications and standards.		Electrothermics one of newest additions to contemporary industry. Electrothermic factories have sprung up in numerous regions in the USSR. At present, program being organized to train personnel to operate these new factories.			
FDB	47T26	FDB	47T27		

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED	
USSR/Electricity Regulators, Electronic Compensation, Electrical	Mar 1948	USSR/Electricity Photoelectric Devices Voltage Regulators	Mar 1948
"Method of Dynamic Compensation in Automatic Machines and Telemechanics," Docent F. Ye. Temnikov, Candidate Tech Sci, Moscow Energetics Inst imeni Molotov, 7 pp		"Voltage Stabilization in Photoelectric Systems of Industrial Automatic Machines," B. I. Filipovich, Candidate Tech Sci, Inst Automatics and Telemach, Acad Sci USSR, 8½ pp	
"Elektrichestvo" No 3		"Elektrichestvo" No 3	
Subject method opens up new field in automatics and telemechanics. Describes advantages of this system: Permits exact measurements, registration, integration, automatic regulation, automatic sorting of parts, telecontrol, and some mathematic operations.		Analysis of requirements of voltage and current stabilizers made for individual photoelectric units. Compares technical characteristics of various types of voltage and current stabilizers, which can be used in photoelectric equipment.	
FDB	47T28	FDB	47T29
USSR/Electricity Luminescence Cathode	Mar 1948	USSR/Electricity Transformers Mathematics, Applied	Mar 1948
"Problems of Cathode Luminescence," Candidate Tech Sci A. V. Moskvina, 6 pp		"Theory of Calculation of Leakage Inductance of Transformers," Prof G. N. Petrov, Dr Tech Sci, 6 pp	
"Elektrichestvo" No 3		"Elektrichestvo" No 3	
Luminescence brought about by electron bombardments very widely used in television, radar and oscillographic instrument as means of transforming electrical impulses into light. Diagrams the operation of cathode luminescence in systems requiring high quality luminophors. Also presents some purely theoretical aspects necessary for proper operation of such systems.		Method known as the mean geometric distance permits determination of leakage inductance of transformer coils. Method of calculation very simple. Petrov gives further and more detailed description of subject.	
FDB	47T30	FDB	47T31
USSR/Electricity Transformers Circuits, Equivalent	Mar 1948	USSR/Electricity Locomotives, Electric Motors, Electric	Mar 1948
"An Equivalent Circuit for Three-Winding Transformer," Prof P. L. Kalantarov, Dr Tech Sci, Leningrad Polytech Inst imeni Kalinin, 4 pp		"Divergence of Characteristics of Traction Motors, and Utilization of the Coupling Weight in Direct Current Electric Locomotives," A. V. Bychkovskiy, Candidate Tech Sci, All-Union Sci Res Inst RR Transportation, 3 pp	
"Elektrichestvo" No 3		"Elektrichestvo" No 3	
Three-element diagram used to illustrate three-winding transformer; usually the magnetic currents disregarded. However, six-element equivalent circuit represents three-winding transformer; but symmetrical six-element system, equivalent to passive six-pole system, not suited to analysis of the operation of		According to OST NKM 4320, locomotive works had to manufacture locomotives having tolerance of ± 5% from the average clearance. GOST 2562-44, effective 1 Jan 1945, cut this tolerance to ± 4%. Neverthe-	
FDB	47T32	FDB	47T33
USSR/Electricity (Contd)	Mar 1948	USSR/Electricity (Contd)	Mar 1948
three-winding iron core transformer. Describes asymmetric six-element system having definite elements corresponding to basic currents in the transformer and losses in the iron core. Also shows how, under certain conditions, system can be applied to four-element circuits.		less, during operation of locomotives, characteristics of the engine change and divergence from the average increases. Diagrams show distribution of locomotives according to their lapse rate, and also show change in the speed of revolution of these locomotives when going into reverse. Presents formulas used to calculate diagrams and arrives at some basic conclusions on divergence characteristics.	
FDB	47T32	FDB	47T33

RESTRICTED		FDB Periodical Abstracts Scientific No 47		RESTRICTED	
USSR/Electricity Voltage Regulators Current Regulators		Mar 1948		USSR/Electricity Rectifiers, Mercury Frequency Changers	
"Barretters," D. Ya. Ashkenazi, Engr, ElektroLampa Works, 3 pp				"Frequency Tripler for Compensation of Extraneous Peak Characteristics in Mercury Arc Rectifier Installations," E. A. Man'kin, Candidate Tech Sci; N. N. Korsun, Engr, Moscow Transformer Factory imeni Kuybyshev, 2 pp	
"Elektrichestvo" No 3				"Vest Elektro-Prom" No 2	
Appliance having wire conductor in gas medium: Current remains constant in spite of changes in voltage. Used in radios to stabilize the voltage to tubes. Four types of barretters produced in prewar USSR. At present their nomenclature being expanded. Author describes selection of barretters for the stabilization of current in electric circuit, and also methods to determine the parameters of barretters.		47T34		In traction equipment voltage peaks not desirable as have an adverse effect on moving parts of the electric motor. Particularly hard on the tubes which burn out frequently.	
FDB				FDB	
USSR/Electricity Motors, Electric Drives, Electric		Feb 1948		USSR/Electricity Voltage Regulators Transformers	
"Selection of Asynchronous Motor According to the Mean Quadrature Current and Moment, in Particular, for Peak Electric Drives," L. B. Geyler, Candidate Tech Sci, All-Union Elec Engin Inst imeni V. I. Lenin, 5 pp				"Variations in Transformer Efficiency during Voltage Regulation of Theater-Type Autotransformer," S. V. Krestnikov, Engr, GosteaSvet Works, 3 pp	
"Vest Elektro-Prom" No 2				"Vest Elektro-Prom" No 2	
Describes in very general terms the relation between the amount of the mean quadrature current and the mean quadrature moment of asynchronous motor operating with fluctuating loads, or more exactly between the capacities of motors selected on this basis.		47T36		Describes changes in transformer efficiency of regulated theatrical autotransformer during the adjustment of voltage by sliding contact system. Transformer operating at maximum efficiency when the contact placed at tap 4/5 of the total turns of the coil, at which time transformer dissipation is equal to 9.8% of nominal capacity of lamps in the circuit.	
FDB				FDB	
USSR/Electricity Voltage Regulators Standardization		Feb 1948		USSR/Electricity Generators, Amplidyne Amplifiers, Power	
"Problem of Standardization of Voltage Regulators," B. Ye. Kubyshin, Engr, Prokop'yevskiy ElectroMach Construction Works of MEP, 6 pp				"Amplification Coefficients of Amplidynes in Electric Drive Regulation Systems," Ye. L. Ettinger, Candidate Tech Sci, All-Union Elec Engin Inst imeni V. I. Lenin, 4 1/4 pp	
"Vest Elektro-Prom" No 2				"Vest Elektro-Prom" No 1	
One of main problems in standardization of the operation of regulator is the impossibility of making calculations due to lack of concrete data on the operation of regulatory systems. Explains general laws on regulation of basic parameters of machines and servomotors to simplify calculations of the resistance of		47T38		Discusses the question of the amplification coefficient of amplidynes. DC generator has two types of coefficients of amplification: coefficient of power amplification, and coefficient of voltage amplification. Comes to several solutions for automatic electric drive systems with amplitude regulation.	
FDB				FDB	
USSR/Electricity (Contd)		Feb 1948		USSR/Electricity Bakelite Moisture Proofing	
regulators on the basis of series of relations common for the greater part of servomotors.				"Methods of Protecting Paper-Bakelite Lead-ins from Moisture," Ya. L. Shugal, Engr, Works 'Izolit' MEP, 1 1/2 pp	
				"Vest Elektro-Prom" No 1	
				Use of condenser-type paper-bakelite lead-ins instead of porcelain lead-ins permits great reduction in weight of the parts. On the other hand, increase of moisture content of lead-ins will lower insulation. Author recommends treatment of such lead-ins with varnish to increase moisture resistance.	
FDB		47T38		FDB	
				47T40	

RESTRICTED		FDB Periodical Abstracts Scientific No 47		RESTRICTED	
USSR/Engineering Welding, Electric Transformers		Jan 1948		USSR/Engineering Thermodynamics Steam	
"Analysis of Characteristics of Welding Transformers," Prof N. S. Siunov, Dr Tech Sci, Ural Industrial Inst, 2 1/2 pp				"Adiabatic Indicator of Saturated and Damp Steam," I. I. Novikov, Naval Acad Shipbuilding and Armament imeni A. N. Krylov, 3 pp	
"Vest Elektro-Prom" No 1				"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8	
Presents simple graphic method to study characteristics of welding transformers. System based on the principle of comparative units, with formulas and graphs.				Gives expression for value of the adiabatic indicator as $k = \frac{\gamma}{p} \left(\frac{\partial p}{\partial \gamma} \right)_s$ good for both a constant gas and for damp steam. Elaborates on this equation. Submitted by Academician M. V. Kirpichev, 17 Jan 1948.	
FDB		47T41		FDB	47T42
USSR/Geology Stratification		Mar 1948		USSR/Geology Stratification	
"Possibility of Using Academician O. Yu. Shmidt's Theory in Geotectonics," Ye. N. Lyustikh, Technophys Lab, Geophys Inst, Acad Sci USSR, 3 pp				"Devon Deposits in the Transcaucasus," M. A. Rzhonsnitskaya, 4 pp	
"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8				"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8	
Claims that O. Yu. Shmidt's cosmogonic theory has great possibilities for promoting new geotectonic hypothesis. Describes uses to which it can be adapted and evolves accurate expression on the basis of experiments. Submitted by Academician O. Yu. Shmidt, 20 Jan 1948.				Gives account of geologic research in the Transcaucasus region and includes table showing stratigraphic layout of Devon deposits in the Transcaucasus and comparison with the Frekh layout. Submitted by Academician D. V. Nalivkin, 19 Jan 1948.	
FDB		47T43		FDB	47T44
USSR/Geophysics Surveying, Geophysics		Mar 1948		USSR/Geophysics Atmosphere - Density	
"Index Number of Central Trajectories," A. G. Mayer, Phys Tech Inst, Gorkiy State U, 4 pp				"Structure of Upper Layers of the Atmosphere According to Crepuscular Observations," T. G. Megrelishvili, I. A. Khvostikov, Abastuman Observatory, Acad Sci Georgian SSR, Geophys Inst, Acad Sci USSR, 3 1/2 pp	
"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8				"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7	
Discusses dynamic system of geodetic lines on surface of negative curvature. Uses Birkgar's symbolic method, and introduces four new symbols, $\alpha_1 = \chi \omega_1, \alpha_2 = \chi \omega_2, \alpha_3 = \gamma \omega_3, \alpha_4 = \gamma \omega_4.$				Authors compare magnitude of density and pressure of the air in high layers of the atmosphere obtained by their electrophotometric twilight observations with corresponding magnitudes obtained by other methods. Such comparison makes possible to determine exactly the role and place of twilight methods among others	
FDB		47T45		FDB	47T46
USSR/Geophysics Atmosphere - Density Light - Dispersion		1 Mar 1948		USSR/Geophysics (Contd)	
"Effect of Diffusion of the Second Order on Brightness of the Crepuscle at the Zenith," N. M. Shtaude, Inst Astr and Phys, Acad Sci Kazan SSR, 2 pp				in studying the stratosphere and ionosphere, and also to examine question of the influence of multiple dispersion, of special interest. Submitted by Academician S. I. Vavilov, 5 Jan 1948.	
"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7					
Author's calculations led him to conclude that strong increase of the influence of dispersion of the second order not property of the atmosphere in general, but only that part having very small density and pressure at great heights. Great many facts cited to support this, and in particular, the rocket flights in					
FDB		47T47		FDB	47T46

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED
USSR/Geophysics (Contd) 1 Mar 1948 America, which reflect such atmosphere and annul Hulbert's results. Submitted by Academician S. I. Vavilov, 5 Jan 1948.	USSR/Geophysics 1 Mar 1948 Light - Dispersion Atmosphere - Illumination "Effect of Multiple Diffusion of Light on Brightness of the Crepuscular Sky," G. V. Rozenberg, I. A. Khvostikov, F. F. Yudalevich, Lab Atm Optics, Geophys Inst, Acad Sci USSR, 2½ pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7 Attempts to prove that Hulbert's results on rapid increase of the segment of secondary dispersion of light in brightness of the crepuscular sky in the zenith by increase of Z_0 is incorrect. Segment remains relatively small in any moment of twilight.	
FDB 47T47 USSR/Mathematics - Calculators Mar 1948 "Operational Cycles of Horizontally and Vertically Acting Tabulators," I. Ye. Akushskiy, 4 pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8 Defines horizontally and vertically acting tabulator as one capable of carrying out transmission of data between different sections of its calculating system. Describes mathematical composition of tabulator.	FDB 47T48 USSR/Geophysics (Contd) 1 Mar 1948 Twilight method used to study the atmosphere up to the very highest layers. Small corrections for the influence of secondary dispersion which will soon be possible in processing twilight observations with help of theoretical formulas will make twilight method of studying the stratosphere and ionosphere more exact and effective. Submitted by Academician S. I. Vavilov, 5 Jan 1948.	
FDB 47T49 USSR/Metals Steel Endurance Tests Mar 1948 "Effect of Surface-Active Substances on the Endurance (Fatigue) of Steel," Sh. Ya. Korovskiy, Air Force Engineers, Acad imeni N. E. Zhukovskiy, 3 pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8 Describes experiments showing effect of the absorbing action of surface-active substances during periodical loading of steel specimens in surface-active media. Tabulates results of this endurance test. Submitted by Academician P. A. Rebinder, 19 Jan 1948.	FDB 47T48 USSR/Minerals Chromaticity Titanium Dioxide Mar 1948 "Coloration of Brookite," N. Yu. Ikornikova, Inst Cryst, Acad Sci USSR, 4 pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8 Gives account of experiments examining various types of coloration in brookite, and diagram of colorations and accessory pyramids of development. Submitted by Academician D. S. Belyankin, 4 Jan 1948.	
FDB 47T50 USSR/Minerals Flotation Pyrites Mar 1948 "Selective Protective Action of Thiocyanates during Flotation of Pyrite and Arsenopyrite," I. N. Plaksin, A. I. Sinel'nikova, K. A. Efremova, Mining Inst, Acad Sci USSR, 2½ pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8 Describes experiments showing that diluted rodanide produces protective action on pyrite, but that copper ions must be added to arsenopyrite to obtain same result.	FDB 47T51 USSR/Minerals Hardening Titanium Dioxide 1 Mar 1948 "Microhardness of Real Crystal in Sample of Brookite," N. Yu. Ikornikova, Inst Cryst, Acad Sci USSR, 3½ pp "Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7 Attempts to show specific particularity of hardness of real crystal, and to present study of the changes in hardness of brookite along with its morphologic lines. Submitted by Academician D. S. Belyankin, 4 Jan 1948.	
FDB 47T52	FDB 47T53	

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FDB Periodical Abstracts Scientific No 47

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USSR/Medicine - Plants Medicine - Cells	1 Mar 1948	USSR/Medicine - Fish Medicine - Taxonomy	1 Mar 1948
<p>"Karyotype and Myxoploidia in Echinum Rubrum Jacq.," A. G. Araratyan, Inst Plant Genetics, Acad Sci Armenian SSR, Yerevan, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Shows that the periblem and the dermatogen are ontogenetically very close to each other and possible to say that the latter almost a continuation of the first, inasmuch as these two layers of meristem behave similarly in formation of polysomatic cells and apparently can be in some sense contrasted to the plerome. Submitted by Academician N. A. Maksimov, 17 Dec 1947.</p> <p>FDB 47T54</p>		<p>"Sheatfish (Family Siluridae) of the Amur Basin," G. V. Nikol'skiy, S. G. Soin, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>During field study by the Amur expedition of Moscow University in 1947, 12 examples of sheatfish obtained having three pairs of antennas, and sharply distinguished from <i>Parasilurus asotus</i> in general appearance. More detailed study showed that fish undoubtedly representative of genus <i>Silurus</i>, but distinguished both from <i>Silurus sinensis</i> Hora and from the European <i>Silurus glanis</i>. Describes structure of fish in detail. Submitted by Academician L. S. Berg, 6 Jan 1948.</p> <p>FDB 47T55</p>	
USSR/Medicine - Staphylococci Medicine - Respiration	1 Mar 1948	USSR/Medicine - Turtles Medicine - Population	1 Mar 1948
<p>"Effect of Gramicidin C on the Respiration of Staphylococcus Aureus and Bacillus Enteritidis," M. G. Brazhnikova, Inst Malaria in Med Parasitol, Acad Med Sci USSR, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Experiments conducted on cultures of staphylococcus aureus and B. enteritidis taken from agar substance and suspended in phosphate buffer. Concluded that magnitude of absorption of oxygen by the suspension of microbes takes place because of consumption of some endogenous food materials, destruction of which</p> <p>FDB 47T56</p>		<p>"Several Considerations on Dynamics of the Number of Harmful Turtles (<i>Eurygaster Integriceps</i> Put.)," A. A. Peredel'skiy, Inst Evolutionary Morphol imeni A. N. Severtsova, Acad Sci USSR, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Having shown earlier that in each concrete case and in each period of time, character and causes of the high as well as the low number of turtles can be very peculiar and nonrecurring, author tried to study this question especially for Stalingrad Oblast. Character, period, and causes of dynamics</p> <p>FDB 47T57</p>	
USSR/Medicine - Staphylococci (Contd)	1 Mar 1948	USSR/Medicine - Turtles (Contd)	1 Mar 1948
<p>stimulated by the gramacidin. With higher content of glucose in the surrounding medium the microbes basically consume the added sugar, and this partially maximizes the stimulating action of gramicidin C on the respiration of staphylococcus. Submitted by Academician A. I. Oparin, 9 Jan 1948.</p> <p>FDB 47T56</p>		<p>of the number of harmful turtles in recent years even in this one oblast not the same for different parts of the oblast and even more varied for other years and other oblasts. Migration of turtles shown to be more important than supposed for flat areas. Submitted by Academician I. I. Shmal'gauzen, 6 Jan 1948.</p> <p>FDB 47T57</p>	
USSR/Medicine - Plants Medicine - Chromosomes	1 Mar 1948	USSR/Medicine - Tobacco Medicine - Alkaloids	1 Mar 1948
<p>"Effect of Several Chemical Compounds on Chromosome Rebuilding in Plants," P. K. Shkvarnikov, Lab Botanical Cytology, Inst Cytology, Histology, and Embryol, Acad Sci USSR, 3½ pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Author has conducted experiments on study of the influence of ethylenimine on the mutational process in several types of plants, such as <i>Hordeum</i>, <i>Solanum</i>, and <i>Crepis</i>. He presents results of experiments on the influence of this substance on chromosome rebuilding in <i>Crepis capillaris</i>. Results presented on the in-</p> <p>FDB 47T58</p>		<p>"Synthesis of Alkaloids in Tobacco Grafts," G. S. Il'in, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>Roots of one type of plant cannot fulfill all the functions of another, although of very similar type, without destroying its particular biochemical processes. Question that concerns Il'in is how will plant grafted onto new roots react in relation to synthesis of alkaloids. In studying this question, tobacco, amphidiploid <i>Nicotiana rustica</i> X <i>N. glauca</i>, and <i>Nicotiana glutinosa</i> grafted on tomatoes and</p> <p>FDB 47T59</p>	

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USSR/Medicine - Plants (Contd)		1 Mar 1948		USSR/Medicine - Tobacco (Contd) 1 Mar 1948	
fluence of ethyl ether of carbonic acid on the frequency of chromosome change of interest, as before only data on the influence of genetic lethals on the frequency existed. Submitted by Academician V. N. Sukachev, 29 Dec 1947.				tomatoes grafted on these types of tobacco. Gives results of experiments. Submitted by Academician A. I. Oparin, 2 Jan 1948.	
FDB		47T58		FDB	
USSR/Medicine - Plants		1 Mar 1948		USSR/Medicine - Dysentery	
Medicine - Hybridity				Medicine - Case Records	
"Sterility of Triticum-Elymus Hybrid of the First Generation," I. A. Palamarchuk, Zonal Inst Grain Econ Non-Black Earth Belt, 2 pp				"Certain Features of the Clinical Progress of Acute Dysentery," V. V. Stavskaya, Z. I. Sosnovik, B. N. Popov, Deputy, Dysentery Sec, Preliminary Therapeutic Clinic, First Leningrad Med Inst imeni Academician Pavlov, 8 pp	
"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7				"Klin Medits" Vol XXVI, No 2	
Up to 1,000 flowers of various ages studied, beginning with deposit of the archisporos on the anther and buds, ending with their death. Shows that disturbance of micro- and macrosporogenesis begins very early and appears in various forms, and formation of both masculine and feminine gametophytes does not take place. In both parental forms the process of micro-				Discuss type of dysentery observed during the blockade of Leningrad. State that there was slight indication of intoxication, negligible temperature reaction, absence of typical stools, and spasms. Also sharp drop in natural immunity of population	
FDB		47T60		FDB	
USSR/Medicine - Plants (Contd)		1 Mar 1948		USSR/Medicine - Dysentery (Contd) Feb 1948	
and macrosporogenesis as well as fruit-bearing takes place normally. Submitted by Academician N. V. Tsitsin, 9 Apr 1947.				of Leningrad. Based on data collected during period, 1943 - 1945. Director of Preliminary Therapeutic Clinic: Prof M. D. Tushinskiy, Active Member, Academy of Medical Sciences, USSR.	
FDB		47T60		FDB	
USSR/Medicine - Cancer		Feb 1948		USSR/Medicine - Influenza	
Medicine - Blood, Platelets				Medicine - Blood Pressure	
"Morphological Changes of Blood Platelets in Cancer," T. V. Kenigson, A. A. Korovin, Preliminary Therapeutic Clinic, First Leningrad Med Inst imeni Academician Pavlov, 5 1/2 pp				"Condition of the Cardiovascular System during Influenza and Influenzal Pneumonia," P. M. Levina, V. S. Trefilov, L. B. Mel'man, Ye. B. Flegontova, Preliminary Therapeutic Clinic, Leningrad State Pedagogical Med Inst, 8 pp	
"Klin Medits" Vol XXVI, No 2				"Klin Medits" Vol XXVI, No 2	
During cancer many of the blood platelets can be mistaken for old cells. Dimensions of platelets at a maximum. Changes in blood platelets similar to those observed after splenectomy, however, the changes are more severe in cancer. In post-gastrotomy cases following removal of cancerous ulcers, the blood plate-				Discusses arterial and venal pressures, results of capillaroscopic examination, and electrocardiographic changes observed in cases of influenza and influenzal pneumonia. Deputy of Preliminary Therapeutic Clinic: Prof S. A. Kofman.	
FDB		47T62		FDB	
				47T63	

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USSR/Medicine - Cancer (Contd)	Feb 1948	USSR/Medicine - Influenza Medicine - Diagnosis
lets grow in size and show greater spacing between one another. Director of Preliminary Therapeutic Clinic: Prof M. D. Tushinskiy, Active Member, Academy of Medical Sciences, USSR.		"Clinical Aspects of Toxic Influenza," Prof L. A. Rozen'yer, Omsk; G. A. Sizemova, Kislodovsk, 7 pp
		"Klin Medits" Vol XXVI, No 2
		Many differences in clinical aspects of toxic influenza, even goes to the point of differences in the classification of this disease. At present two types of gripe (influenza): epidemic or virus, and seasonal. Describes some of other methods for classifying gripe and discusses several cases.
FDB	47T62	FDB
USSR/Medicine - Influenza Medicine - Penicillin	Feb 1948	USSR/Medicine - Influenza Medicine - Meningococcus, Infection
"Discussion of Article by Prof S. Ya. Kofman and his Co-workers, 'An Experiment with Use of Penicillin in Influenza'," Prof N. I. Ragoza, Maj-Gen, Med Corps, 2 p		"Outbreak of Meningococcus Infection during Influenza," Docent R. Sharlay, 1 1/2 pp
"Klin Medits" Vol XXVI, No 2		"Klin Medits" Vol XXVI, No 2
Article describes treatment lasting only one day and using a mere 100,000 units of penicillin. Ragoza questions the value of such treatment, however, due to fact that observations very few in number, and also that rather serious errors committed in comparing effects of penicillin treatment by inhalation and by intramuscular injections. Ragoza suggests that in-		Prolonged catarrhal forms of influenza proved favorable for meningococcus infection by entrance of the bacteria through the lachrymal ducts into the blood stream. As prophylaxis, patients given doses of sulfidine (0.1 during period of 5 days). Contemporary methods for treatment of meningococcus infection during influenza effective.
FDB	47T65	FDB
USSR/Medicine - Influenza (Contd)	Feb 1948	USSR/Medicine - Dysentery Medicine - Diagnosis
halation method should be more fully tested and confirmed prior to use.		"Reply to Professor S. V. Viskovskiy's Discussion of My Article, 'Problem of the Diagnosis of Dysentery'," Prof Ya. I. Lipkin, 1 1/2 pp
		"Klin Medits" Vol XXVI, No 2
		Article in question appeared in "Klinicheskaya Meditsina" No 5, 1947. Lipkin states that criticisms unwarranted since his discussion, based on symptoms of single case of dysentery, namely hemorrhagic colitis. States that Viskovskiy was in error and thought that Lipkin meant ordinary colitis, an affliction to be found in anyone without dysentery.
FDB	47T65	FDB
USSR/Medicine - Influenza Medicine - Penicillin	Feb 1948	USSR/Medicine - Influenza, Virus Medicine - Catarrh
"Use of Penicillin in Influenza," Prof S. Ya. Kofman, Deputy, Preliminary Therapeutic Clinic, M. I. Kol'yanova, N. I. Romanenko, Ya. L. Gotlib, Preliminary Therapeutic Clinic, State Leningrad Pediatric Med Inst, Virusology Lab, Inst imeni Pasteur, 4 pp		"Review of Professor Rossinskiy's Book, 'Influenza and Seasonal Catarrh of the Respiratory Tract'," Prof I. A. Kassirskiy, 1 p
"Klin Medits" Vol XXVI, No 2		"Klin Medits" Vol XXVI, No 2
Data collected from penicillin therapy for cases during 1946 Leningrad influenza epidemic. Answers several questions: 1) What effect does penicillin therapy have on the course of an influenza epidemic? 2) Is it possible to avert an influenza epidemic by preventive		Book published in 1945 by Medical Publishing House in Moscow. Explains many aspects of virus influenza and seasonal catarrh and describes methods for differentiating the two. Book is valuable, but Kassirskiy hopes that Rossinskiy will make several minor changes in the second printing.
FDB	47T68	FDB
		47T69

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED
USSR/Medicine - Influenza (Contd)	Feb 1948	USSR/Medicine - Influenza Medicine - Skin, Diseases
inoculation of penicillin? 3) What effect does penicillin have on patients already suffering from influenza? Deputy of Virology Laboratory: N. N. Romanenko.		"Eruptions during Grippal Infections," F. G. Epshteyn, Deputy, Influenza Sec, Infection Clinic VIEM, Nth Infectious Hospital, 3 pp
		"Klin Medits" Vol XXVI, No 2
		No record of true case of influenza or seasonal catarrh complicated by either scarlet fever or petechial rash. Herpes only form of rash ever observed with influenza or seasonal catarrh. Presence of influenzal rash fully established only after positive diagnosis of influenza made. Scientific Instructor at Infection Clinic VIEM: Prof A. A. Smorodintsev. Chief of Nth Infectious Hospital: Capt P. P. Timokhina, Medical Corps. FDB
FDB	47T68	47T70
USSR/Medicine - Skin, Diseases Medicine - Influenza	Feb 1948	USSR/Medicine - Influenza Medicine - Skin, Diseases
"Clinical Diagnosis of Grippal Exanthemata," V. M. Fedotov, Chair Skin-Venereal Diseases, Chair Polyclinic Internal Diseases, First MOLMI, 2 pp		"Discussion of Articles by Professor L. A. Rozen'yer and G. A. Sizemova, V. M. Fedotov. and F. G. Epshteyn," Prof N. I. Pagoza, 1½ pp
"Klin Medits" Vol XXVI, No 2		"Klin Medits" Vol XXVI, No 2
Data to clarify certain doubtful points in clinical diagnosis of grippal exanthemata. In particular, collected data presents some aspects of dermatosis, the result of grippal exanthemata. Divides such skin afflictions into five groups. Director of Chair of Skin-Venereal Diseases: Prof O. N. Podvysotskaya, Corresponding Member, Academy of Sciences, USSR.		Briefly reviews Rozen'yer and Sizemova's article, "Clinical Aspects of Toxic Influenza"; Fedotov's article, "Clinical Diagnosis of Grippal Exanthema"; and Epshteyn's article, "Eruptions during Grippal Infection." All articles deal with two important problems: 1) various facts related to grippal exanthemata, and 2) classification of clinical
FDB	47T71	FDB
USSR/Medicine - Skin, Diseases (Contd)	Feb 1948	USSR/Medicine - Influenza (Contd)
Director of Chair of Polyclinic of Internal Diseases: Prof D. M. Rossiyskiy, Honorary Promoter of Science.		aspects of epidemic influenza, and in particular, clinical aspects of grippotoxin.
		Feb 1948
		47T72
FDB	47T71	FDB
USSR/Medicine - Marine Organisms Medicine - Diuresis and Diuretics	Feb 1948	USSR/Medicine - Intestines, Diseases Jan/Feb 1948 Medicine - Sulfanilamide and Sulfanilamide Derivatives
"The Sea Onion," M. L. Shcherba, Preliminary Therapeutic Clinic, First Leningrad Med Inst imeni Academician Pavlov, 2½ pp		"Complications with the Eyes in Treatment of Intestinal Infections with Disulfan," Prof N. I. Medvedev, Crimean Med Inst imeni I. V. Stalin, 3 pp
"Klin Medits" Vol XXVI, No 2		"Vest Oftalmol" Vol XXVII, No 1
Presents some basic facts on Scilla maritima or the Urginea maritima. Found along the coast of the Mediterranean Sea. Describes symptoms caused by administering sea onion extract. It has excellent diuretic properties. Director of Preliminary Therapeutic Clinic: Prof M. D. Tushinskiy, Active Member, Academy of Medical Sciences, USSR.		Describes experiments and details of case histories which show that eye complications occurring during disulfan treatment of intestinal infections can, for the most part, be overcome, and only reach serious proportions in few cases.
FDB	47T73	FDB
		47T74

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED
USSR/Medicine - Eyes, Diseases Medicine - Penicillin Jan/Feb 1948 "Experiments in the Use of Penicillin in Certain Ocular Diseases," E. T. Basina, Kirgiz Med Inst, 1½ pp "Vest Oftalmol" Vol XXVII, No 1 Gives number of case histories comparing effect of penicillin with that of other types of therapy when treating diseases of the eye. Advises intraocular use of penicillin in many cases.	USSR/Medicine - Eyes Medicine - Penicillin Jan/Feb 1948 "Local Penicillin Treatment of Certain External Diseases of the Eye," N. M. Damskaya, Chelyabinsk Med Inst, 3 pp "Vest Oftalmol" Vol XXVII, No 1 Describes treatment with penicillin of 75 patients, seven of them suffering from chronic dacryocystitis, 32 from blepharitis, two from blepharo-kerato-conjunctivitis, two from gonoblennorrhea, and 32 from ulcers on the cornea membrane.	
FDB 47T75	FDB 47T76	
USSR/Medicine - Eyes, Wounds and Injuries Medicine - Penicillin Jan/Feb 1948 "Penicillin Therapy in Cases of Wound Infection of the Eye," I. Ye. Tsiring, Chelyabinsk Med Inst, 3½ pp "Vest Oftalmol" Vol XXVII, No 1 Gives details of penicillin treatment of 40 cases where the eye had become infected after removal of cataracts. Includes table showing bacterial flora in the watery moisture and vitreous body of the eyes of these patients.	USSR/Medicine - Eyes Medicine - Penicillin Jan/Feb 1948 "Experimental Data on Permeability of Penicillin in Liquids of the Eye," T. N. Burlakova, Leningrad Med Inst, 2½ pp "Vest Oftalmol" Vol XXVII, No 1 Describes series of experiments designed to establish whether penicillin penetrates into the vitreous body and whether it can be detected there by intramuscular and other injections. Also deals with penetration of penicillin into the moisture of anterior camera.	
FDB 47T77	FDB 47T78	
USSR/Medicine - Eyes Medicine - Penicillin Jan/Feb 1948 "Bacteriostatic Effect of Penicillin in the Moisture of the Camera and in the Vitreous Body with Various Methods of Injecting It into the Eyeball," Prof A. B. Katsnel'son; Dr T. M. Chabrova, Chelyabinsk Med Inst, 4½ pp "Vest Oftalmol" Vol XXVII, No 1 Describes various methods of introducing penicillin into the eye by local injection. Discusses effect of different concentrations of penicillin on the eye tissues. Includes case histories of some of patients who received penicillin treatment for eye wounds.	USSR/Medicine - Leukemia, Myelogenous Medicine - Nervous System Jan 1948 "Materials for the Neurological Study of Sequelal Toxialimentary Aleukia (Septic Angina)," M. I. Kholodenko, Candidate Med Sci, Clinic Neuropathy, Kuybyshev Med Inst, 1 p "Nevropat i Psiakhiat" Vol XVII, No 1 Basic data collected as result of observations conducted on some 100 cases suffering from toxialimentary aleukia. Object of studies to determine whether or not carriers of this disease have marked variations in their nervous systems and how many cases have this variation. Also obtained data in	
FDB 47T79	FDB 47T80	
USSR/Medicine - Encephalitis Medicine - Case Records Jan 1948 "Spring-Summer Encephalitis Cases with Progressive Course in Primorskiy Kray," P. M. Al'perovich, Dr Med Sci, Chief, Nerve Sec, Evac Hosp No 311, 3 pp "Nevropat i Psiakhiat" Vol XVII, No 1 Discusses two cases of spring-summer encephalitis with progressive course treated during nine-year stay by author in Primorskiy Kray. Submitted for publication, 24 Dec 1947. Chief of Evacuation Hospital No 311: A. A. Pomazanov.	USSR/Medicine - Leukemia, Myelogenous (Contd) Jan 1948 regard to determining whether or not nervous complaints occur during early stages of the disease. Submitted for publication, 27 Oct 1945. Deputy of Clinic of Neuropathy: Prof A. I. Zlatoverov. Director of Kuybyshev Medical Institute: V. I. Savel'yev.	
FDB 47T81	FDB 47T80	

RESTRICTED	FDB Periodical Abstracts Scientific No 47		RESTRICTED
USSR/Medicine - Encephalitis Medicine - Nervous System	Jan 1948	USSR/Medicine - Nervous System Medicine - Diseases	Jan 1948
"Comparative Histological Characteristics of Autumn Encephalitis of Primorskiy Kray and Japanese Encephalitis," Prof N. I. Grashchenkov, Dir, Inst Neurology, Corr Mem, Acad Med Sci USSR; I. S. Glazunov, I. A. Robinson, Inst Neurology, 8 pp		"Characteristics of Acute Nervous Infections According to Data of Khar'kov Clinic of Nervous Diseases over Period of Eight Years," Docent V. M. Kanter, Clinic Nervous Diseases, Khabarovsk Med Inst, 5 pp	
"Nevropat i Psihiat" Vol XVII, No 1		"Nevropat i Psihiat" Vol XVII, No 1	
Briefly describes comparative characteristics of histopathologic changes in the central nervous system due to so-called "autumn encephalitis" of Primorskiy Kray and Japanese encephalitis, common in Manchuria. Material collected during 1939 and 1940 epidemic in		Data obtained by author in clinical experiments to study infectious diseases of the nervous system. Article introduces apparently a series of articles that will be published on this collected data. He hopes, in the future, to write articles on the in-	
FDB	47T82	FDB	47T83
USSR/Medicine - Encephalitis (Contd)	Jan 1948	USSR/Medicine - Nervous System (Contd)	Jan 1948
Primorskiy Kray and 1945 epidemic in Manchuria. Submitted for publication, 2 Feb 1947.		dividual forms of nerve diseases that he studied. Submitted for publication, 20 Oct 1947. Deputy of Khar'kov Clinic of Nervous Diseases: Prof L. Ya. Nemlikher.	
FDB	47T82	FDB	47T83
USSR/Medicine - Encephalitis Medicine - Nervous System, Diseases	Jan 1948	USSR/Medicine - Encephalitis, Haemorrhagic Jan 1948 Medicine - Case Records	
"Tick Encephalitis and Some Other Seasonal Virus Nerve Infections in Yaroslav Oblast," Prof G. G. Sokolyanskiy, Dir, V. N. Klyuchikov, Asst, Clinic Nerve Diseases, Yaroslav Med Inst, 5 pp		"Comatose Form of Haemorrhagic Encephalitis in Children," A. D. Dinaburg, Dr Med Sci, Sci Collaborator, Nerve Sec, N. A. Maksimovich, Nerve Sec, Somatic Clinic, Inst OkhMatDet Kiev, 5 pp	
"Nevropat i Psiakhiat" Vol XVII, No 1		"Nevropat i Psiakhiat" Vol XVII, No 1	
Describes history of tick encephalitis case apparently cured in 1901, but indicated positive after-effects some 46 years later. Greatest outbreaks in 1901, and the majority confined to north part of the Oblast. Submitted for publication, 31 Oct 1947.		In period, Dec 1944 - Apr 1945, some 14 cases of haemorrhagic encephalitis, many of which complicated by pneumonia, infections of the alimentary tract, or by otitis. Briefly describes case histories of these patients. Disease seasonal in nature. Submitted for publication, 20 Jul 1946.	
FDB	47T84	FDB	47T85
USSR/Medicine - Nervous System Medicine - Diseases	Jan 1948	USSR/Medicine - Encephalitis, Haemorrhagic Jan 1948 (Contd)	
"Problem of Mixed Nerve Infections," A. A. Rubanovich, Candidate Med Sci, Clinic Nerve Diseases, Voronezh Med Inst, 4 pp		Scientific Collaborator of Somatic Clinic: A. Z. Lazarev, Honary Promoter of Sciences. Director of Institute of OkhMatDet Kiev: A. G. Papp.	
"Nevropat i Psiakhiat" Vol XVII, No 1			
Recently ten cases of meningitis among syphilis patients at Voronezh Clinic for Neuropathy. Further studies conducted to determine how far mixed nerve infections develop. Determined that those suffering from syphilis could be afflicted with other types of disease. In any case, established that virus can complicate microbe-type diseases, and microbes can			
FDB	47T86	FDB	47T85

RESTRICTED	FDB Periodical Abstracts Scientific No 47	RESTRICTED
USSR/Medicine - Nervous System (Contd) Jan 1948	USSR/Medicine - Meningitis Jan 1948 Medicine - Diagnosis	
complicate virus-type diseases. Submitted for publication, 11 Aug 1947. Deputy of Clinic of Nerve Diseases: Prof N. M. Itsenko.	"Meningitis Produced by Torula Histolytica Saccharomycetes," Prof N. V. Kononov, 15 pp	
	"Nevropat i Psiakhiat" Vol XVII, No 1	
	Discusses diseases of the pia mater and the brain, caused by the Torula histolytica, and still unknown in Soviet Russia, which must be kept in mind when physician is diagnosing tubercular meningitis or brain tumors, however, he is urged to study the slightest symptomatic variations. Submitted for publication, 11 Mar 1947.	
FDB 47T86	FDB 47T87	
USSR/Medicine - Tularemia Jan 1948 Medicine - Nervous System	USSR/Medicine - Hookworm Infection Jan 1948 Medicine - Diagnosis	
"Clinical Aspects of Variations in the Nervous System in Tularemia," Ye. A. Mirotvorskaya, Clinic Nerve Diseases, Kursk Med Inst, 4 pp	"Psychic Disturbances during Ancylostomiasis," Prof D. S. Ozeretskovskiy, Deputy, Chair Psychiatry, Azerbaydzhan State Med Inst, Azerbaydzhan Sci Res Inst Malaria and Med Parasitol, 1½ pp	
"Nevropat i Psiakhiat" Vol XVII, No 1	"Nevropat i Psiakhiat" Vol XVII, No 1	
Nervous system acutely affected during early stages of tularemia. Also during early stages possible to observe development of polyneuritis, polyradiculoneuritis, and arachnoida. Nervous system becomes permanently affected as result of tularemia. Psychic trauma, and several other factors can cause changes in the nervous system. Submitted for publication,	Psychic disturbances included in general picture of astenic conditions. Contemporary psychiatry has tendency to isolate basic astenic condition in ancylostomiasis. No well-defined symptoms for psychic disturbances during ancylostomiasis. Single symptom of anemia may be indication of pernicious	
FDB 47T88	FDB 47T89	
USSR/Medicine - Tularemia (Contd) Jan 1948	USSR/Medicine - Hookworm Infection (Contd) Jan 1948	
21 Jun 1947. Director of Kursk Medical Institute: Prof N. I. Golik.	anemia rather than ancylostomiasis. Submitted for publication, 18 Feb 1947. Director of Azerbaydzhan Scientific Research Institute of Malaria and Medical Parasitology: Prof P. P. Popov.	
FDB 47T88	FDB 47T89	
USSR/Medicine - Scarlet Fever Jan/Feb 1948 Medicine - Penicillin	USSR/Medicine - Dysentery Jan/Feb 1948 Medicine - Otitis	
"Penicillin Therapy in Scarlet Fever Complications," Ye. V. Solomonov, Candidate Med Sci, Cent Sci Res Inst Otorhinolaryngol, Ministry Health RSFSR, 3½ pp	"Causes of Acute Otitis Complicating Dysentery in Young Children," A. P. Odoyevskiy, Sverdlovsk Med Inst, 5½ pp	
"Vest Oto-Rino-Laringol" No 1	"Vest Oto-Rino-Laringol" No 1	
Describes treatment of children with scarlet fever by intramuscular injection of penicillin every four hours for 5 - 10 days depending on condition of the patient. Indicates satisfactory results and advocates use.	Describes experiments establishing main causes of acute otitis complicating dysentery in young children as streptococci and pneumococci, and that other microorganisms cannot be considered direct causes.	
FDB 47T90	FDB 47T91	

FDB Periodical Abstracts Scientific No 47			
USSR/Medicine - Tonsils Medicine - Microorganisms	Jan/Feb 1948	USSR/Medicine - Heart, Insufficiency Medicine - Disease	Mar 1948
<p>"Sensitizing and Toxic Properties of Microflora of the Tonsillar Crypts," S. P. Fel'dman, Candidate Med Sci, Moscow Order Lenin Med Inst, 7½ pp</p> <p>"Vest Oto-Rino-Laringol" No 1</p> <p>Gives tabular analysis of biological and sensitizing properties of the flora of clinically healthy tonsils, and of tonsils suffering from chronic and acute tonsillitis. Discusses the activity of streptococci and staphylococci.</p>		<p>"Histological Structure of Myocardia Sauropsida," N. N. Kochetov, Mil Med Acad imeni S. M. Kirov, 2 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes various experiments designed to establish the histological structure of myocardia and to study its evolution under various heart conditions. Submitted by Academician V. N. Sukachev, 14 Jan 1948.</p>	
FDB	47T92	FDB	47T93
USSR/Medicine - Tapeworms Medicine - Reproduction	Mar 1948	USSR/Medicine - Cestodes Medicine - Physiology	Mar 1948
<p>"Mathevolepsia Petrotschenkoi Nov. Gen. Sp., New Form of Cestode with Uterus Channel for the Separation of Eggs," A. A. Spasskiy, Helminthologic Lab, Acad Sci USSR, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiments showing that formation of uterus channels in cestodes of the tapeworm variety considered particular trend in evolution of the sexual apparatus of the worm. Submitted by Academician K. I. Skryabin, 17 Jan 1948.</p>		<p>"Substitution of Index Functions of Nipples in Cestode Aploparaksis Sobolevi Nov. Sp.," P. G. Oshmarin, F. N. Morozov, Gorkiy Pedagogic Inst, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiments confirming that this form of cestode only to be found in the fantailed snipe (Capella gallinago) and localized in the duodenum. Submitted by Academician K. I. Skryabin, 17 Jan 1948.</p>	
FDB	47T94	FDB	47T95
USSR/Medicine - Citrus Medicine - Oxidation	Mar 1948	USSR/Physics Ferromagnetism Electromagnetism	Mar 1948
<p>"Species Peculiarities of the Oxidizing System in Citrus," B. A. Rubin, Ye. V. Artsikhovskaya, T. M. Ivanova, Biochem Inst imeni A. N. Bakh, Acad Sci USSR, 3 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Gives results of experiments designed to obtain average data on the level of respiratory gas exchange in various tissues of following types of citrus fruit: mandarin (Citrus reticulata), orange (Citrus sinensis) and lemon (Citrus limon). Submitted by Academician A. I. Opariny, 10 Jan 1948.</p>		<p>"Electromagnetic Processes with Magnetic Viscosity," M. I. Rozovskiy, 4 pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiments on ferromagnetic core possessing magnetic viscosity and situated in self-induction coil included in the circuit with a resistance. Submitted by Academician B. A. Vbedenskiy, 5 Jan 1948.</p>	
FDB	47T96	FDB	47T97
USSR/Physics Luminescence, Thermal Zinc Oxide	Mar 1948	USSR/Physics Luminescence Zinc Sulfide	1 Mar 1948
<p>"Temperature Radiation of Zinc Oxides," V. M. Kudryavtseva, G. I. Sinyapkina, Siberian Phys Tech Inst, Tomsk State U, imeni V. V. Kuybyshev, 3½ pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8</p> <p>Describes experiments establishing that zinc oxides possess no temperature luminescence whatsoever, and that all irregularities of temperature radiation in this substance connected with irregularities in its absorption.</p>		<p>"Coefficient of Useful Work during Excitation of Luminescent Zinc Sulfide by Beta Rays," G. I. Born, N. Ril', K. G. Tsimer', 3½ pp</p> <p>"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7</p> <p>From experiments, concluded that the coefficient of useful work of X-ray luminescence of cadmium tungstate or platinyan barium is the same. While the brilliance of X-ray luminescence of ZnS is five times greater than this, its coefficient of useful work not more than 30%. However, believe that for</p>	
FDB	47T98	FDB	47T99

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FDB Periodical Abstracts Scientific No 47

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USSR/Physics 1 Mar 1948
Recrystallization
Hysteresis

"Unavoidable Hysteresis of Transformation during Recrystallization," N. N. Sirota, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Every process of recrystallization necessarily accompanied by the phenomenon of hysteresis, i.e., over-heating or overcooling. Cause of hysteresis lies in the very mechanism of phase transformation, taking place by the formation of nuclei, which demands some supersaturation. Examined two direct causes of hysteresis. Presents formula for the magnitude of hysteresis.

FDB 47T100

USSR/Physics (Contd) 1 Mar 1948

teresis and discusses the phenomenon in detail. Submitted by Academician G. G. Urazov, 9 Jan 1948.

FDB 47T100

USSR/Soil Studies 1 Mar 1948
Fluorine

"Fluorine in Soils of the USSR," A. P. Vinogradov, Corr Mem, Acad Sci USSR; V. V. Danilova, Lab Geochem Problems imeni V. I. Vernadskiy, 2½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 7

Reports distribution of fluorine in soils of the USSR. Basic source of fluorine in the soils: disintegrated rocks containing average of 0.03% F, their minerals containing considerable amount of fluorine, such as apatite, tourmaline, biotite, muscovite and other minerals. Gives other secondary sources. Gives table of fluorine containing soils of the USSR.

FDB 47T102

List of Abbreviations
used in FDB Periodical Abstracts

ID	Intelligence Division Library
AMC	Air Documents Division, Air Materiel Command
ST	Reference Division, State Department
BM	Bureau of Mines, Dept of Interior
BS	National Bureau of Standards
SI	Smithsonian Institution
LC	Library of Congress
FDB	Foreign Documents Branch, CIA
COM	Department of Commerce
AF	A-2 Library, USAF

USSR/Physics (Contd) 1 Mar 1948

conclusive proof of Fano's theory additional data needed. Submitted by Academician S. I. Vavilov, 16 Jan 1948.

FDB 47T99

USSR/Radio Mar 1948

Wave Guides

"Excitation of Wave E₀ in Circular Wave Guide with the Aid of Coaxial Line," L. A. Vaynshteyn, 3½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 8

Describes various experiments on wave excitation produced by longitudinal vibrator situated on the axis of circular wave guide. Submitted by Academician M. A. Leontovich, 9 Jan 1948.

FDB 47T101

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